

Environmental Governance and Key Challenges at Local Level in Indian Context

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ABSTRACT

Governance relates to the structure and functioning of the government and the institutional arrangements and processes of civil society. A society having high degree of resource scarcity due to intense competition for raw materials and increasing demand for livelihood resources requires an efficient and just environmental governance system. This article attempts to include environmental governance initiatives at the international, national and local levels. Further, an attempt has been made to identify the key challenges at the local level related to environmental governance.

Keywords: *Environmental Governance, Local Environmental Governance, Municipal Adaptation Plan*

INTRODUCTION

Some of the key challenges, facing India are environmental degradation, poverty and economic development. For the development of the nation, different decisions, activities are undertaken from inception till completion. Almost all human activities lead to modifications, often adverse to the ecosystem. If these changes are reasonably well within the carrying capacity of the ecosystem, resilience of the system

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is not adversely affected. To address these challenges environmental governance plays an important role.

Governance, in general means a set of complex values, standards, processes, and authorities by which development happens in a society and its resolved conflicts are managed formally or informally. Generally speaking, governance involves various institutions at different levels including the local, national, regional and global levels along with civil society (Hempel 1996). It includes different institutions such as political, administrative, Non-governmental Organisations (NGOs), Community Based Organisations (CBOs), etc. that have their own set of rules and decision-making procedures. Historically, such governance included essential components of global security, physical, social and economic development issues. However, environmental issues to this list are relatively new and have emerged over the past four decades. *'Environmental governance comprises complex governance elements dealing with various environmental compartments in an integrated manner through the involvement of a wide range of actors and stakeholders'* (UNEP, 2007).

ENVIRONMENTAL GOVERNANCE

Environmental governance is important as it helps societies to identify and deal with environmental problems. It involves interactions among different stakeholders and the government wherein they identify strategies, methods, policies and alternatives to reduce the impacts, resolve the problems and devise environment management plans that can be implemented over the longer run. Environment governance emphasises the inclusion of the environment in all parts of development planning and decision-making, from the inception of the project to its final implementation. It also recognises the transboundary impacts of environmental management decisions.

The key focus is that the decision-makers must be aware of both the environmental and social impacts of the different decisions made by them. The legal and policy framework provides the public to access information and decision-making that may have a negative environmental impact on their lives, and inequitable access to recourse if such resources are damaged. Hence, 'Environmental governance is described as the sum of organisations, policy instruments, financing mechanisms, rules, procedures and norms that regulate the processes of environmental protection' (Adapted from Global Environmental Governance: Reform Agenda, IISD 2006). The three key aspects that are considered for good environmental governance include equity, inclusiveness and attention to conserve and regenerate the resources.

Elements of Environmental Governance

Some of the essential elements of environmental governance are enumerated as below:

- Participation of all stakeholders at different levels in the decision-making to implement the decisions.
- The country and the state laws and policies reflect the needs of both the development and conservation.
- Emphasis on sustainable development considering intergenerational inequities of resources in such a way that there are no shortages for the future generations. This can be achieved by strong leadership, both at political and bureaucratic levels.
- To give required recognition to the private sector which plays an important role in the environment and supports the public good by finding a way in between private gain and social development.

Principles of Environmental Governance

Environmental governance is based on some of the key principles that include:

- Preventative action is to prevent environmental damage in the first place instead of restoring the damage later on.
- Setting environmental standards that reflect the economic and social development in a given society, considering common risks to human health, to other environmental setups, financial and technical feasibility, etc.
- Sustainable development management framework to ensure close inspection to the environmental trends which should be within sustainable limits and for long-term to mitigate adhocism in case of hazards.
- Legal liability emphasises the rule and regulations laid in the country to redress environmental issues. These help to impose civil liability for environmental damage that would lead to actions against the institutions or individuals to compensate for the environmental damage.
- Economic efficiency to include services of environmental resources by attaching economic value to the environmental

resources. A detailed social cost-benefit analysis will include such economic values. In addition, other measures such as polluter pays and cost minimisation can be also included in the process.

- Equity refers to the participation of the relevant stakeholders in the decision-making processes in matters related to the use of environmental resources.

Different Approaches and Changing Trends: Initiatives Taken at Various Levels

Global Initiatives

Environmental change and development challenges are caused by the different sets of drivers. They include population change, economic processes, scientific and technological innovations, distribution patterns, and cultural, social, political and institutional processes. The responsibility for the drivers that create the pressures on the environment is not equally distributed throughout the world. One form of human activity can cause several reinforcing environmental effects impacting human well-being in many ways.²

Recommendations emphasised the expansion of international institutions for cooperation, and the creation of legal mechanisms for environmental protection and sustainable development, and also stressed the links between poverty and environmental degradation.

Important landmarks at global level are as follows:

- The most immediate and perhaps one of the most significant results of *Our Common Future* was the organisation of the United Nations Conference on Environment and Development (UNCED), also known as the Earth Summit, which gathered many heads of state in Rio de Janeiro in 1992. Not only did this meeting bring together 108 government leaders, but it also took initial measures towards sustainability.
- The summit resulted in several important steps towards sustainable development. Through the adoption of the Rio Declaration and Agenda 21, it helped formalise an international institutional framework to implement the ideas highlighted in *Our Common Future*. *The Rio Declaration* contains 27 principles that nations agreed to follow to achieve the goals articulated by the Brundtland Commission.
- Funding for the implementation of Agenda 21 was to be

obtained from the Global Environment Facility (GEF). As a partnership involving the United Nations Environment Programme (UNEP), United Nations Development Programme (UNDP) and World Bank, GEF was established the year before the Earth Summit to mobilise resources for projects that seek to protect the environment.

- World leaders sought to ensure a world free from want. In the Millennium Declaration, adopted in 2000, world leaders committed to free their people from the “threat of living on a planet irredeemably spoiled by human activities, and whose resources would no longer be sufficient for their needs” (UN 2000). The Millennium Summit adopted the declaration and created time-bound goals and targets – the Millennium Development Goals (MDGs) – to better human well-being.
- Two years after the Millennium Declaration and a decade after the Rio Earth Summit, world leaders reaffirmed sustainable development as a central goal on the international agenda at the 2002 Johannesburg World Summit on Sustainable Development (WSSD). More than 191 governments participated to discuss the state of sustainable development.
- The Intergovernmental Panel on Climate (IPC) Change was established in 1988 to assess on an objective, open and transparent basis the scientific, technical and socio-economic information relevant to climate change. In 2013, the IPC released its Fourth Assessment Report and in September 2022 6th assessment report will be released.
- Two agreements that have drawn significant attention during the last 20 years are the Montreal Protocol to the Vienna Convention on "Substances that Deplete the Ozone Layer" and the Kyoto Protocol to the "UN Framework Convention on Climate Change".
- The Montreal Protocol, which became effective in 1989 and had 191 parties at the beginning of 2007, has helped decrease or stabilise atmospheric concentrations of many of the ozone-depleting substances, including chlorofluorocarbons. The protocol is regarded as one of the most successful international agreements to date. By contrast, despite the urgency of climate change, it has been much more difficult to get some countries responsible for significant emissions of greenhouse gases to ratify the Kyoto Protocol.

- The Sustainable Development Goals (SDGs) have been set in 2015 to target the key areas of the development which are to be met by 2030. There are a total of 17 goals and 169 targets classified under different categories. The main aim is to build a more sustainable world by having an integrated and transformative agenda. In 2019, the Sustainable Development Index was released to help the countries identify the gaps in order to achieve sustainability targets by 2030.

National Initiatives

In India, there was no consideration given to the environment before the 1970s. The efforts for legislating different environmental laws were made after the historic international convention held in Stockholm 1972, the United Nations (UN) Conference on Human, Environment and Development and this led to the start of environmental governance in the country. The first legislative effort to protect the environment was made by legislating the Water Act to prevent and control water pollution in 1974. The Act provided for the establishment of institutional setup known as pollution control boards both at the Central level and in the states.

In the year 1981, two laws related to air and forest were introduced to prevent and control air pollution and for forest conservation. To control, prevent and mitigate air pollution, the same boards were given the responsibilities. After the Bhopal Gas tragedy in 1984, the need was felt to tighten the environment regulation which paved the path for the enactment of an umbrella Environment Act i.e. Environment Protection Act (EPA), 1986. This Act vested the powers to the Central government and state governments to initiate necessary measures to mitigate the environmental impacts. There are a number of rules and notifications made under the EPA addressing different areas as solid waste management, hazardous waste, noise pollution, Environment Impact Assessment (EIA) notification, Coastal Regulation Zone (CRZ) regulations, etc. to name a few.

Besides the number of environmental legislations, the environment is continuously degraded due to the piecemeal approaches. Due to this, the pollution levels are increasing instead of declining. To bring significant improvement in the same, World Bank has identified different environmental issues and a focused study is required in order to strengthen the institutions for sustainable growth. The key drivers discussed are - Industry, Power and Linear Sources (highways).

Environmental issues identified by the above key drivers are:

- Seventy per cent of total industrial pollution load is by Small and Medium Enterprises (SME's);
- Growing municipal sources of pollution;
- Multiple industrial, municipal and transport sources contributing to environmental degradation in a particular area or ecosystem; and
- Linear projects with complex direct and indirect impacts such as highways.

Focus area of the study are:

- Promoting greater accountability, transparency, and public participation in environmental management;
- Strengthening monitoring and enforcement of policies and regulations;
- Addressing capacity needs of environmental institutions; and
- Improving institutional incentives for integrating sectoral and environmental priorities.

In light of the above focus areas, it is also important to strengthen environmental governance at the local levels. For a better solution for environmental governance, there is a need to go down to the Urban Local Body (ULB) level for better understanding and implementation of broad strategy framed at the national and global levels.

Local Level Initiatives

At the local level to strengthen environmental governance, the ULB's need to make a municipal adaptation plan which emphasises making the cities resilient rather than reactive at the time of crises. The following section includes the Adaptation plan adopted from a framework that was prepared by South Africa. In addition, it also includes decentralisation of powers to the ULB's as per the Constitution of India which can act as a step forward to empower the ULB's to take their own decisions. Further, the initiatives for environment governance at Pune city have been included to highlight the good environmental governance measures, taken by the concerned authorities.

MUNICIPAL ADAPTATION PLAN (MAP)

A number of initiatives have been taken for National Level Adaptation Plan of Action (NAPA). However, the least consideration is given

to Local Level Adaptation Plans. A framework for a municipal level approach has been followed in Cape Town, a city in South Africa. As per MAP, priority initiatives should be taken to reduce the impacts of climate change and help cities to adapt rather than react when the damage has already been done.

MAP is structured around four principles:

- Adaptation to short term climatic variability will reduce long-term vulnerability;
- Adaptation policies are addressed in a developmental context;
- Adaptation occurs at different levels of society; and
- Both strategy and process are equally important.

Process for developing MAP

The following steps are presented to guide the development of an appropriate local level or Municipal Adaptation Strategy (refer to Fig. 1).

- Assess current trends and future projections for the geographical region;

Fig. 1: Process of Municipal Adaptation Plan Preparation



Source: Authors

- Undertake a climate vulnerability assessment of the municipal area;
- Review of current development plans and priorities based on the strategic plans;
- Overlay development priorities, expected climatic change, current climate vulnerability and expected future climate vulnerability;
- Develop adaptation options using new and existing consultative tools; and
- Prioritise the adaptation actions using tools such as multi-criteria analysis, cost-benefit analysis or social accounting matrices;
- Develop programme and project scoping and design documents together with the associated budget. This document will be Municipal Adaptation Plan (MAP);
- Implement the interventions prioritised in MAP;
- Monitor and evaluate the interventions on an ongoing basis;
- Regularly review and modify the plans at predefined intervals.

These above steps should be complemented by two cross-cutting processes.

(i) Stakeholders engagement

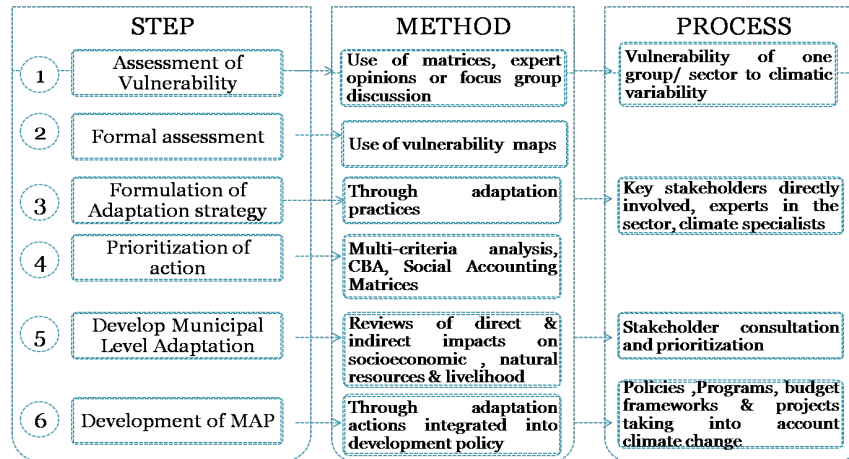
Stakeholders should be engaged in order to identify vulnerable sectors and existing and potential adaptation initiatives. This engagement process is also necessary to bring politicians and decision-makers on board and to give them insight into the projected impacts and potential adaptation actions.

(ii) Adaptive capacity assessment

The capacity to adapt by the various sectors that would be affected by the impacts of climate change need to be addressed. Adaptive capacity can be defined as the potential or ability of a system to adapt to the impacts of climate change. There are currently no methodologies for addressing the adaptive capacity of a sector.

This process also includes an assessment of the local government's capacity to implement adaptation actions in terms of budgetary and personnel constraints, with and without explicit climate change adaptation strategies (refer to Fig. 2).

Fig. 2: Method and Process for Each Step to Prepare MAP



DECENTRALISATION INITIATIVES AT THE LOCAL LEVEL:
 74TH CONSTITUTION AMENDMENT ACT, 1992

Recent changes have initiated many technological and organisational innovations at both the policy and the project levels. At the policy level, an important opportunity to face the challenge of rapid urbanisation is presented by the surge towards decentralisation adopted by governments throughout the world. In India, the government took a very significant step in 1992, by making the 73rd and 74th Constitutional Amendment Act thereby transferring many administrative and financial powers to Local Bodies. This makes Urban Local Bodies (ULB's) one of the most important functionary in the provision of urban services.

As per the 12th Schedule of the 74th Constitutional Amendment Act of India, 18 new tasks have been defined as in the functional domain of the ULBs, the most important of which is related to environmental governance including urban planning, regulation and planning for development, public health including sanitation and solid waste management, protection of the environment and protection of ecological aspects. Using these powers and functions, the municipal authorities should prepare the MAPs. However, there are still various issues at the local level due to which the ULB's are not working effectively. These include:

- The problem of *ineffective participation* in the decision-making;
- *Delays in the transfer of funds* to the municipalities despite the constitution of State Finance Commissions;
- The poor capacity of municipalities;

- *Poor recovery* from various tax and non-tax sources despite devolution of powers, etc.;
- Initiatives are taken in a fragmented manner; an integrated approach has not been followed for environmental governance at the ULB level;
- Some states have not included the 74th Amendment in state legislation;
- Restrictions on the financial side and mismatch between rights and duties – duties cast on them are much larger than rights they have over other resources;
- Many ULB's could not meet the core expenditure from their own revenue generated at local levels; and
- Lack of Municipal Adaptation of environmental governance at local levels

So there is a need to approach in a holistic manner for sustainable development at the local level.

INSTITUTIONAL REFORMS RELATED TO ENVIRONMENT IN PUNE CITY

Pune, formerly called Poona, is the second-largest city after Mumbai in Maharashtra and the 13th most polluted city in India (vehicular pollution). With the growth of the city, traffic volume on several roads has increased causing congestion and low speeds, environmental pollution and degradation of the quality of city life. The intersections are overloaded and require augmentation of capacity. The city also is facing traffic problems like the paucity of parking facilities and low speeds in central areas. Besides, the city is facing many environmental problems.

Following are the initiatives taken by Pune Municipal Corporation (PMC) to undertake the various issues in the city.

- *Environmental Status Report (ESR) preparations* in Pune from last 10 years;
- The nodal agency for implementation of the action plan- like AQMC, Pune;
- Sustainable city development program: Eco housing, Clear Development Mechanism (CDM);
- Urban Air Action Plans;

- Environment management of areas with industrial clusters; and
- Safe disposal of waste material.

The above initiatives are the result of Awaked People many Public Interest Litigation (PIL) filed in the Hon'ble Supreme Court to improve the quality of the city. Moreover proactive approach of the civic agencies and responsible authorities with extensive stakeholder support resulted in an improved environment of the city. Besides this availability of in house expertise, giant market players, extensive political will and massive public and media support play a vital role. All these driving forces have led the city to a new path. Following are the outputs of the initiatives taken by the city:

- Inclusion of responsibilities for local government;
- Safeguard environment;
- In addition to basic amenities, provision of a better environment – Solid Waste management (SWM), Air Quality Measure (AQM), etc.;
- Environment Status Reports;
- 74th Amendment to the Constitution in 1992; and
- Decentralisation of Municipal Working.

All the above initiatives are piecemeal approaches, which are required for integrated environmental governance at the city level to have a sound city environment.

Key Challenges and Initiatives to be taken at the Local Level

Despite a number of initiatives taken at the national level, environmental governance lacks its appropriate place in the system. There is a lack of a comprehensive governance system dealing with environmental problems. Issue-specific, scattered initiatives such as River Action Plans, Namami Gange, Swachh Bharat Mission, etc. are some of the plans schemes dealing with environmental problems.

Legal and policy framework is well in place to deal with various environmental issues but lacks in implementation and execution of legal provisions on the actual ground. Societies and even governments are dealing with issue-specific problems. Like Master Plans, environmental plans of the cities should be prepared, which should include a baseline study of all the environmental parameters and any decision should be made according to that. For the same, there should be a legal framework

mandating the preparation and implementation of the environmental plans at the municipal levels.

At present only a few cities have prepared ESR and Apportionment studies. The online monitoring stations for different types of pollution are limited to a few stations only. Only the large cities are included in the monitoring station, with only one monitoring station in most of the cities. Although institutional strengthening is required at all levels of government, the weakest link seems to be the local level. There is a commensurate need for strengthening administrative personnel and reorienting policies.

For local level environmental governance, there is a need for ecologically sustainable development, which can be achieved by enhancing individual and collective well-being and welfare by following preventive actions:

- Providing for equity in participation of stakeholders;
- Protecting the city environment and maintaining environmental conservation as an integral part of the developmental process; and
- Protecting against legal liabilities, i.e. actions against polluters/culprits of the environment of the city.

CONCLUSION

To make environmental governance an integral part of the institutional arrangement it is important to involve all stakeholders at all levels. There is an immediate need to segregate the issues in such a way that ensures the implementation of effective interventions at the appropriate level with the appropriate stakeholders. Although institutional strengthening is required at all levels of government, the weakest link seems to be the local level. There is a commensurate need for strengthening administrative personnel and reorienting policies.

REFERENCES

1. UNEP, "GEO4: Environment for development" (2007), Progress Press Ltd Valletta, Malta [Online]. Available: (11-06-2007)
2. SEMINAR ON CSR FOR SUSTAINABLE DEVELOPMENT" (22 November 2005)[Online]. Available: www.cmsvatavaran.org/vatavaran2005/csr.pdf [2-29-2008]
3. "Global Environmental Governance: Reform Agenda", (2006), IISD[Online]. Available: www.cmsvatavaran.org/vatavaran2005/csr.pdf [2-29-2008]

4. Joshi, Shailendra (2007), "The Framework of Environmental Governance" [Online]. Available: www.hrdp-net.in/e199/e432/e3194/infoboxContent3195/Knowledge-Skills4D_No_1a.pdf - [2-29-2008]
5. Environmental Governance-East Asian Experience in Environmental Governance- Response in a rapidly Developing region.
6. Mukheibir, Perre and Gina Ziervigel, (2007), "Developing a Municipal Adaptation Plan (MAP) for Climate Change: the city of Cape Town" in *Environment & Urbanization Journal*, 19 (1): 143-158.
7. Nallathiga, Ramakrishna. (2012). Review of Environmental governance in India: Cataloguing of the current initiatives. *TERI Information Digest on Energy and Environment Volume 11, No. 2*, pp. 189-198.
8. Bedajna, Sutirtha. *Between Ecology and Economy Environmental Governance in India*. [Online]. Available: <http://www.mcrg.ac.in/pp37.pdf>
9. Damodaran, A. (2012). The Challenge Of Multi-Level Environmental Governance In India, *Periodica Oeconomica*, (pp. 29-37).
10. Sandhu, Vikram, A.S. Sidhu. (2015). Environmental Governance in India: A Systematic Review of the Initiatives. *Pacific Business Review International*, Volume 8, Issue 4 (pp. 49-57).
11. The Constitution of India, 74th Constitution Amendment Act, 1992.
12. Localising SDG's Early lessons from India, (2019). NITI Aayog, India.
13. Sustainable Development Goals, UNDP India. <https://www.in.undp.org/content/india/en/home/sustainable-development-goals.html>

Footnotes

1. Corresponding Author
2. UNEP, (2007), "Global Environment Outlook GEO4-environment for development", published by UNEP.